AMENDMENTS TO THE CLAIMS

Please cancel claims 19-37 and amend the claims labeled "currently amended" (claims 1, 12-15, 18) as indicated below. A clean copy of the pending claims, as amended, is attached as Appendix A.

1. (Currently amended) A method for accelerating the rate of mucociliary clearance in a subject ~~in need of such treatment~~ with mucociliary dysfunction comprising administering to the subject an effective mucociliary clearance stimulatory amount of a composition comprising a Kunitz-type serine protease inhibitor and a physiologically acceptable carrier.

2. (Original) The method according to claim 1, wherein the composition is administered to the lung airways.

3. (Original) The method according to claim 1, wherein said composition is administered directly by aerosolization.

4. (Original) The method according to claim 1, wherein said composition is administered directly as an aerosol suspension into the mammal's respiratory tract.

5. (Original) The method according to claim 4, wherein said aerosol suspension includes respirable particles ranging in size from about 1 to about 10 microns.

6. (Original) The method according to claim 4, wherein said aerosol suspension includes respirable particles ranging in size from about 1 to about 5 microns.

7. (Original) The method according to claim 4, wherein said aerosol suspension is delivered to said subject by a pressure driven nebulizer.

8. (Original) The method according to claim 4, wherein said aerosol suspension is delivered to said subject by an ultrasonic nebulizer.

9. (Original) The method according to claim 4, wherein said aerosol suspension is delivered to said subject by a non-toxic propellant.

10. (~~Original~~) (Currently Amended) The method according to claim 1, wherein said carrier is a member selected from the group consisting of a ~~physiologically~~ buffered solution, an isotonic saline, normal saline, and combinations thereof.

11. (Original) The method according to claim 1 wherein the Kunitz-type serine protease inhibitor is aprotinin.

12. (Currently amended) The method according to claim 1, wherein the Kunitz-type serine protease inhibitor comprises the amino acid sequence:

~~MAQLCGL RRSRAFLALL GSLLLSGVLA 1~~
~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~
~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~
~~ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200~~
~~QERALRTVWS SGDDKEQLVK NTYVL 225~~

(SEQ ID NO.: 49).

13. (Currently amended) The method according to claim 1, wherein the Kunitz-type serine protease inhibitor comprises the amino acid sequence:

~~AGSFLAWL GSLLLSGVLA 1~~
~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~
~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~
~~ACMLRCFRQQ ENPPLPLGSK VVVLAGAVS 179~~

(SEQ ID NO.: 2),

~~MLR AEADGVSRLL GSLLLSGVLA 1~~

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~

~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~

~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~

~~ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200~~

~~QERALRTVWS SGDDKEQLVK NTYVL 225~~

(SEQ ID NO.: 45),

~~MAQLCGL RRSRAFLALL GSLLLSGVLA 1~~

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~

~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~

~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~

~~ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200~~

~~QERALRTVWS FGD 213~~

(SEQ ID NO.: 47),

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~

~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~

~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~

~~ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200~~

~~QERALRTVWS SGDDKEQLVK NTYVL 225~~

(SEQ ID NO.: 70),

~~and~~ or

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~

~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~

~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~

~~ACMLRCFRQQ ENPPLPLGSK VVVLAGLFVM VLILFLGASM VYLIRVARRN 200~~

~~QERALRTVWS FGD 213~~

(SEQ ID NO.: 71).

14. (Currently amended) The method according to claim 1, wherein the Kunitz-type serine protease inhibitor comprises the amino acid sequence:

~~IHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATV 64~~
(SEQ ID NO.: 4),

~~CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK C 61~~
(SEQ ID NO.: 5),

~~YEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~
~~ACMLRCFRQ 159~~
(SEQ ID NO.: 6),

~~CTANAVTGPC RASFPRWYFD VERNSCNNFI YGGCRGNKNS YRSEE 150~~
~~ACMLRC 156~~
(SEQ ID NO.: 7),

~~IHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 75~~
~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 125~~
~~ACMLRCFRQ 159~~
(SEQ ID NO.: 3),

~~CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~
~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~

~~ACMLRC 156~~

(SEQ ID NO.: 50),

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 25~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 75~~
~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 125~~
~~ACMLRCFRQQ ENPPLPLGSK VVVLAGAVS 179~~

(SEQ ID NO.: 1),

~~and~~ or

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DSEDHSSDMF 100~~
~~NYEEYCTANA VTGPCRASFP RWYFDVERNS CNNFIYGGCR GNKNSYRSEE 150~~
~~ACMLRCFRQQ ENPPLPLGSK 170~~

(SEQ ID NO.: 52).

15. (Currently amended) The method according to claim 1, wherein the Kunitz-type serine protease inhibitor comprises the amino acid sequence:

~~ADRERSIHDF CLVSKVVGRC RASMPRWWYN VTDGSCQLFV YGGCDGNSNN 50~~
~~YLTKEECLKK CATVTENATG DLATSRNAAD SSVPSAPRRQ DS 92~~

(SEQ ID NO.: 8).

16. (Original) The method according to claims 12, 13, 14 or 15, wherein the Kunitz-type serine protease inhibitor is glycosylated.

17. (Original) The method according to claims 12, 13, 14 or 15, wherein the Kunitz-type serine protease inhibitor contains at least one intra-chain cysteine-cysteine disulfide bond.

18. (Currently amended) The method according to claims 12, 13, 14, or 15, wherein the Kunitz-type serine protease inhibitor contains at least one intra-chain cysteine-cysteine disulfide bond selected from the cysteine-cysteine paired groups consisting of CYS11-CYS61, CYS20-CYS44, CYS36-CYS57, CYS106-CYS156, CYS115-CYS139, and CYS131-CYS152, wherein the cysteine residues are numbered according to the amino acid sequence of ~~native human placental bikunin~~ SEQ ID NO.: 52.

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19-37. Cancelled.